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(54) Title:	<u>PROPORTIONAL PRESSURE ASSIST VENTILATION CONTROLLED BY A DIAPHRAGM ELECTROMYOGRAPHIC SIGNAL</u>		
<pre> graph TD A[GIVEN INSPIRATORY LUNG VOLUME 508] --> B[UNIT FOR DETERMINING MEAN AMPLITUDE OF SIGNAL 508 FOR GIVEN LUNG VOLUME] B --> C{MEAN AMPLITUDE INCREASED? 603} C -- YES --> D[UNIT FOR INCREASING PRESSURE ASSIST BY A PRESET INCREMENT 605] D --> E[PRESSURE ASSIST UNIT 604] E --> F[AIRWAY 605] C -- NO --> G{MEAN AMPLITUDE DECREASED? 607} G -- YES --> H[UNIT FOR DECREASING PRESSURE ASSIST BY A PRESET DECREMENT 606] H --> E </pre>			
(57) Abstract	<p>A closed loop system uses (a) the intensity of the diaphragm electromyogram (EMG) for a given inspiratory volume; (b) the inspiratory volume for a given EMG intensity; or (c) a combination of (a) and (b); in view of controlling the level of gas flow, gas volume or gas pressure delivered by a mechanical (lung) ventilator. The closed loop ventilator system enables for automatic or manual adjustment of the level of inspiratory support in proportion to changes in the neuro-ventilatory efficiency such that the neural drive remains stable at a desired target level. An alarm can also be used to detect changes in neuroventilatory efficiency in view of performing manual adjustments.</p>		